

Exhibit A to Opposition to Motion for Preliminary Injunction

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IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

SIERRA CLUB,

Plaintiff,

V.

U.S. ARMY CORPS OF ENGINEERS,
LIEUTENANT GENERAL TODD T.
SEMONITE, COLONEL KENNETH
N. REED, COLONEL TIMOTHY R.
VAIL, BRANDON MOBLEY, AND
KRISTI MCMILLAN,

Defendants,

and

**KINDER MORGAN TEXAS
PIPELINE LLC, AND PERMIAN
HIGHWAY PIPELINE, LLC,**

Intervenor-Defendants.

Case No. 1:20-cv-00460-RP

Declaration of Sital K. Mody

1. My name is Sital K. Mody. I am the President of the Midstream Group of Kinder Morgan, Inc. (“KMI”). I have served in this position since August of 2018. I am also the President of Permian Highway Pipeline, LLC. I have served in this position since September of 2018 when PHP was formed. KMI, through a subsidiary, is a partial owner of PHP. I have worked in various positions for KMI or its predecessor companies since 2001. All of those positions relate to natural gas pipelines and midstream operations.

2. PHP, a Delaware limited liability company, owns the Permian Highway Pipeline (the “Pipeline”). PHP has contracted with Kinder Morgan Texas Pipeline, LLC (“KMTP”), an indirect subsidiary of KMI, for the construction and operation of the Pipeline.

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3. I previously provided a declaration describing my involvement with the Pipeline which was filed in support of KMTP's and PHP's (together, "PHP") Motion to Intervene in this litigation.

4. I provide this additional declaration to inform the Court of the status of construction activities for the Pipeline and to explain the Pipeline's construction progress. I also address some of the Declarants' concerns about the Pipeline operations. Finally, I explain the scope of harms that would occur to PHP if the efficacy of the NWP 12 verifications issued by the U.S. Army Corps of Engineers was enjoined pending the resolution of the merits of the case.

Pipeline Construction Status

5. Construction has been underway on the Pipeline since September 2019. Clearing is approximately 98% complete along the length of the Pipeline. As of July 8, 2020, the project is more than 72% mechanically complete, and PHP has completed more than 302 miles of the project. The project was initially divided into five spreads designated spreads one through five, although work in spreads two and three are now considered together and referred to as spread 23.

6. The project is complete in spread one including hydro-testing, meaning that 112-mile section of the Pipeline is ready to go into operation. The Pipeline in spread one is scheduled to be filled with dry natural gas in anticipation of going into service beginning July 14, 2020; this procedure is referred to as 'packing' the Pipeline.

7. Construction activities including clearing, grading, trenching, welding, setting the pipeline, backfilling, and restoration are underway in spreads 23, four and five. As of July 8, 2020, the Pipeline is more than 65% mechanically complete in spread 23, more than 58% mechanically complete in spread four, and more than 60% mechanically complete in spread five; a total of more than 191 miles of the Pipeline have been laid in the trench and backfilled in these three spreads. Additional information regarding the status of construction is provided in Attachment A-1.

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8. PHP has incurred costs of approximately \$1.98 billion out of a budget of more than \$2.27 billion. PHP estimates that construction will be complete and the Pipeline in service by January 2021.

Project Background

9. As of 2018, the Permian Basin has produced more than 33 billion barrels of oil, along with 118 trillion cubic feet of natural gas. In recent years, Permian Basin production has accounted for as much as thirty-five percent of U.S. crude oil production and 9 percent of U.S. dry natural gas production. While the production was thought to have peaked in the early 1970s, new technologies for oil extraction, such as hydraulic fracturing and horizontal drilling, have increased production dramatically.

10. The U.S. Energy Information Administration estimated in July 2019 that proven reserves in the Permian Basin still hold 8 billion barrels of oil and approximately 27 trillion cubic feet of natural gas.

11. Drilling companies focus on drilling and pumping oil, which is highly lucrative. The less-valuable natural gas which is pumped along with the oil is considered to be a “by-product.” During the current boom in the Permian Basin oil fields, drilling for oil has outpaced pipeline construction, so the use of flaring has increased along with venting of natural gas.

12. The Pipeline is a \$2.27 billion project that will provide needed transportation capacity for increased natural gas production from the Permian Basin to growing market areas along the Texas Gulf Coast.

13. In the Permian Basin region, natural gas was vented or flared at an “all time high” of 750 million cubic feet per day (“MMcfd”) during the period from July 2019 to September 2019, up from less than 100 MMcfd just under a decade ago. Flaring continues today. This gas is flared or directly vented to the atmosphere because there is insufficient pipeline capacity to transport the gas

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so that it can be productively used. The flaring and venting not only wastes the gas but is detrimental to air quality in the region.

14. To help solve this problem with takeaway capacity in the Permian Basin, capture the full value of its natural resources for the Texas and U.S. economy, and reduce the burden on the environment, the Pipeline has been designed to transport up to 2.1 billion cubic feet per day (“Bcf/d”) of dry pipeline-quality natural gas through approximately 428+ miles of 42-inch pipeline.

15. The Pipeline route is entirely within the State of Texas, and will run from the Waha Hub in Reeves County to Sheridan in Colorado County. The Pipeline will be co-located with several existing utilities, including natural gas pipelines, along 61% of its route. This route is located in an operationally feasible area that minimizes the Pipeline’s impact on the environment. PHP’s engineers and environmental specialists developed this route after close examination of publicly available information, as well as aerial, environmental, cultural, and civil survey data.

16. The selected route is the best route from an environmental and constructability perspective. Moving it north or south would increase environmental impacts and lengthen the route, which would likely increase the number of impacted landowners. Going north of Austin would impact a significantly greater number of landowners and create additional environmental impacts due to the rocky soil that would require extensive blasting. The selected route crosses the southern boundary of the Barton Springs Segment of the Edwards Aquifer; moving it south so that it is closer to, or around San Antonio, would greatly increase the mileage directly through the center of the Edwards Aquifer.

17. The Pipeline is expected to be in service in January 2021. Upon completion, the Pipeline will cross sixteen counties within the state of Texas (from west to east): Reeves, Pecos, Crane, Upton, Reagan, Crockett, Schleicher, Menard, Kimble, Gillespie, Blanco, Hays, Caldwell, Gonzales, Lavaca, and Colorado. These counties are located within the Albuquerque, Fort Worth, and Galveston Districts of the U.S. Army Corps of Engineers (“Corps”). As part of the Pipeline

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development, PHP notified the Corps Districts that it intended to use the Corps' Nationwide Permit 12 (Utility Line Activities) to authorize the discharge of dredged and fill material into waters of the United States during construction of the Pipeline (an activity that is regulated by the Corps pursuant to the Clean Water Act). The Galveston and Fort Worth Corps Districts both issued verifications on February 13, 2020.

Pipeline Operation & Safety

18. Certain Declarants speculate that PHP may explode while in operation. These Declarants assert without evidence that PHP will transport volatile and flammable pipeline liquids that, once ignited, will cause a natural gas pipeline explosion. These Declarants fear property damage, injuries, and fatalities as a result of such a catastrophe.

19. PHP has engineered the Pipeline in accordance with the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration regulations in 49 C.F.R. Part 192 pertaining to the transportation of natural gas and other gas by pipeline. These regulations include requirements related to the structural integrity, design pressure, and yield-strength of the Pipeline. Additionally, KMTP and PHP received a permit to operate the Pipeline from the Texas Railroad Commission pursuant to 16 TEX. ADMIN. CODE ANN. § 3.70.

20. The Pipeline will meet or exceed numerous regulations and procedures to regularly monitor, test and inspect the mechanical and operational integrity. The Pipeline will be monitored 24 hours a day, seven days a week and 365 days a year using a Supervisory Control and Data Acquisition computer system. Safety efforts also include: electronic surveillance systems, visual inspections of right-of way, as well as internal inspections using sophisticated computerized equipment called "smart pigs."

21. Statistics gathered by the National Transportation Safety Board indicate that pipelines make up less than one one-hundredth of one percent (.01%) of all transportation accidents in the

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United States. There are approximately 300,000 miles of natural gas transmission pipelines throughout the United States that deliver safe, reliable natural gas to American families and businesses.

22. While it is important to be aware of the risks posed by improper pipeline operation and maintenance, Plaintiff's and Declarants' concerns about an explosion on the Pipeline are speculative.

23. PHP is fully committed to operating a safe pipeline, and has extensive experience in operating natural gas pipelines. The Pipeline will be a dry natural gas pipeline, and producers delivering natural gas to PHP for delivery will be required to ensure that the gas meets quality specifications. If nonconforming gas is detected at a gas receipt station, PHP has the ability to interrupt operations remotely. The majority of the gas transported will have passed through a Cryogenic Gas Plant, which condenses the hydrocarbon compounds that might condense in the Pipeline. Although no significant volumes of liquids are expected to condense in the Pipeline, PHP will still investigate the pipeline for liquids accumulation and structural integrity, including corrosion.

24. KMTP has significant experience with operating dry natural gas pipelines. KMTP operates the Gulf Coast Express Pipeline ("GCX"), which also transports dry natural gas. KMTP operates a smaller line which it refers to as the Hill Country Lateral located in the area known as the Texas Hill Country. The Hill Country Lateral contains multiple compressor stations with filter separators that collect any condensed liquids. The operators of the Hill Country Lateral rarely discover accumulated liquids at these filter separators.

25. Neither the GCX nor the Hill Country Lateral have had issues associated with accumulated liquids or explosions.

26. In response to two Notices of Intent sent to the Corps, PHP provided additional detail to the Corps regarding the project and the measures being taken that address the concerns articulated

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in those Notices, including pipeline operation and safety information. The response, without attachments, is attached to this Declaration as Attachment A-2.

The Pipeline will not Transport Liquids

27. As the operator of an integrated intrastate natural gas pipeline system spanning more than 6,000 miles of pipeline, KMTP has extensive experience with gas pipelines and has taken steps to ensure that any potential for liquids to accumulate in the Pipeline and the possibility for a liquid leak is incredibly small. This is true for a number of reasons.

28. First, PHP has designed the Pipeline to transport only dry natural gas. This means that the liquids associated with natural gas extraction have been removed prior to being introduced into the pipeline for transportation.

29. Second, the natural gas that will be transported on the Pipeline must be dry based on the established gas quality specification for all customers. This gas quality specification, among other things, restricts heavier hydrocarbons and is a requirement for delivery of the gas. The specification is designed to assure that all gas stays in gaseous form, and the specification will be measured and enforced at every receipt point on the Pipeline. Each of the Pipeline's receipt measurement stations will be equipped with gas chromatographs and analyzers that ensure the gas quality specification is met. In the very unlikely event that this specification is not met, PHP has the ability to interrupt service and shut off the receipt point.

30. Third, ground temperatures along the project route and the composition of the gas transported on the Pipeline make liquid collecting in the Pipeline physically unlikely. While the temperature of the gas in the Pipeline will vary, it will be as warm as 120 degrees Fahrenheit and get no colder than the ground temperature. Ground temperatures along the project route range from 60-70 degrees Fahrenheit which is substantially higher than the pipeline gas dewpoint.

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31. Formation of liquids in the Pipeline is inconsistent with KMTP's experience operating the Hill Country Lateral. The Hill Country Lateral contains multiple compressor stations with filter separators designed to protect the compressor units from any liquids or solids that may be in the line. The operators of these stations have historically pulled almost no liquids out of the line. Similarly, at every metered inlet point, PHP will have multiple compressor stations with filter separators designed to filter and catch any possible liquids in the gas stream.

32. In addition, while the Pipeline could theoretically be reconfigured to transport liquids, the Declarants are incorrect that PHP could change the pipeline's service to transport crude or other liquids for many reasons. Among other things, PHP has expressly agreed in a large number of its right-of-way agreements and road crossing agreements to limit the pipeline to transportation of dry natural gas. Further, the statutory scheme by which the right-of-ways were condemned is expressly limited to gas utilities, defined under Texas Utilities Code § 181.021 as a company "... engaged in the business of transporting or delivering gas for public consumption." The Pipeline is also engineered and will be constructed to transport natural gas. Major reconfiguration would be necessary to convert the pipeline to transport liquids. Finally, because of constraints in moving natural gas from the Permian Basin, the pipeline is fully subscribed for the next 10 years. These subscriptions are binding contracts.

Injunction-related Harms to PHP

33. The injunction Plaintiff seeks would suspend the efficacy of the Corps authorization upon which PHP's construction plan is dependent for specific areas known as "Corps Action Areas" as defined in the Biological Opinion issued by the U.S Fish and Wildlife Service. PHP would be significantly harmed if the Court were to grant Plaintiff that relief. Pipeline construction is a moving assembly line, and clearing and grading crews prepare the ground for subsequent stringing crews, who are followed by trenching and assembly crews, and so forth, until the pipeline is completed and the

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right-of-way restored and reseeded. A preliminary injunction would bring that assembly line to a halt, at least temporarily.

34. If PHP did not have the use of the NWP 12 verifications issued to it by the Corps, PHP would have to use alternative and costlier methods to construct the Pipeline outside the Corps jurisdictional areas. The Clean Water Act prohibits discharging dredge or fill material to enter waters of the United States, and PHP has obtained the appropriate authorizations to use conventional construction methods which result in these types of discharges. However, alternative methods like HDD or horizontal boring (“HB”) do not cause these discharges and PHP anticipates it will be able to continue construction in full compliance with applicable law in most areas. If an injunction is issued and PHP chooses to bore under Corps jurisdictional waters, construction would be delayed as PHP modifies its construction plan to utilize HDD and HB methods for the remaining crossings. PHP anticipates that costs associated with a preliminary injunction would be approximately \$2 million; this figure includes our estimate of additional contracting costs, delay costs, and the increased cost of using HDD and HB methods relative to the previously budgeted costs for conventional crossing methods.

35. However, if the Court were to grant the relief Plaintiff seeks it would prevent critical construction activities within one Corps Action Area relating to the installation of the Pipeline under the Navidad River via HDD. The Navidad River crossing is taking place in the Galveston District and the Corps has determined that it requires a permit under the Rivers and Harbors Act, but not under the Clean Water Act. It is the only HDD crossing for the entire project within Corps jurisdiction. The Pipeline cannot be completed and placed into service until PHP completes the Navidad River crossing. Stopping construction of the project at this critical location would result in approximately \$5 million in damages from increased construction costs to discontinue the HDD, secure the site, and complete the HDD at a later date. As stated in paragraph 8 above, PHP has spent \$1.98 billion of the \$2.27 billion project budget to date and a lengthy injunction that prevented PHP

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from completing the Navidad River HDD would risk these investments. Also, halting construction would lead to lost revenues on the order of \$32.8 million per month (approximately \$1.08 million per day), and/or expose PHP to liability based on existing commercial and delivery contracts.

36. The Pipeline is on track to generate directly 2,500 local construction jobs and 18 full-time, ongoing positions following construction and will help continue the development and job creation from the booming oil and gas activity throughout Texas. When complete, the new facilities constructed as part of the project will generate approximately \$42 million of increased annual revenue to applicable state and local taxing bodies.

37. These taxes contribute to funding for the Texas Department of Transportation's highway fund, as well as the Permanent University Fund, which provides approximately half of the funding for Texas A&M University and the University of Texas systems. In 2018, the oil and natural gas industry paid more than \$14 billion in state and local taxes and state royalties—this equates to \$38 million a day to fund schools, roads, universities and first responders throughout the entire state.

38. The Pipeline will allow continued oil and gas production to drive the state's economy and provide a massive source of tax dollars. The Pipeline, and the oil and gas production it will enable, will provide almost \$1 billion in additional oil and gas production tax revenue each year to the state and counties for schools, first responders and other vital needs, and individual leaseholders will receive more than \$2 billion per year in new oil and natural gas royalties.

39. Halting the Pipeline will also have economic effects on the upstream oil and natural gas sector operating in the Permian Basin. As discussed in paragraph 9 above, production in the Permian Basin has dramatically increased in recent years, and many businesses have reasonably planned investment and expansion around development of the Pipeline.

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40. An injunction against the Pipeline will harm not just PHP, but also these individuals and organizations, sending ripples through the State and local economy. None of these benefits will come to fruition any time soon if an injunction holds up the construction of the Pipeline indefinitely.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing statements are true and correct. Executed July 9, 2020.

A handwritten signature in black ink, appearing to read "Sital K Mody", is written over a horizontal line. The signature is fluid and cursive, with a large, sweeping flourish at the top.

Sital K Mody
President
Permian Highway Pipeline LLC

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ATTACHMENT A-1

PHP CONSTRUCTION PROGRESS TABLE

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Permian Highway Pipeline Construction Progress (as of July 8, 2020)					
	PHP	Spread 1	Spread 2 & 3	Spread 4	Spread 5
Staking	100%	100%	100%	100%	100%
Clearing	98%	100%	100%	86%	100%
Grading	98%	100%	100%	86%	100%
Trenching	87%	100%	85%	85%	74%
Welding	85%	100%	78%	69%	92%
Backfill	70%	100%	72%	33%	56%
Overall	72%	100%	65%	58%	60%

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ATTACHMENT A-2

*LETTER FROM SITAL K. MODY, PRESIDENT, PERMLAN HIGHWAY PIPELINE, LLC to
U.S. ARMY CORPS of ENGINEERS and U.S. FISH & WILDLIFE SERVICE*

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November 25, 2019

The Honorable Ryan D. McCarthy
Acting Secretary of the Army
101 Army Pentagon
Washington, D.C. 20310-0101

The Honorable David L. Bernhardt
Secretary of the Interior
1849 C Street NW
Mail Stop 7163
Washington, D.C. 20240

Lieutenant General Todd T. Semonite
Commanding General and Chief of Engineers
United States Army Corps of Engineers
441 G Street NW
Washington, D.C. 20314-1000

Margaret Everson
Acting Director
U.S. Fish and Wildlife Service
1849 C Street NW
Washington, D.C. 20240

Re: Permian Highway Pipeline Permit Application,
Project No. SWF-2018-00227

Dear Sirs and Madam:

We are writing in response to two Notices of Intent to Sue (the “Notices”) sent to you, as well as to Permian Highway Pipeline, LLC (PHP) and Kinder Morgan Texas Pipeline LLC, with respect to the PHP project. The first, dated July 17, 2019 (the “July Notice”), was sent on behalf of Hays County, Texas, Travis Audubon Society, Larry and Arlene Becker, Jonna Murchison, and Gil Eckrich. The second, dated October 16, 2019 (the “October Notice”), was sent on behalf of the City of Austin, the City of San Marcos, the City of Kyle, the Barton Springs Edwards Aquifer Conservation District, the Wimberley Valley Watershed Association, and the Texas Real Estate Advocacy and Defense Coalition. The Notices relate to a proposed dry natural gas pipeline crossing 16 Texas counties between Reeves County and Colorado County, Texas (the “project”). PHP has applied for verification from the United States Army Corps of Engineers (USACE) that certain temporary discharges of dredged or fill material into Waters of the United States

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(WOTUS) and crossings underneath a waterway subject to Rivers and Harbors Act jurisdiction are authorized under Nationwide Permit (NWP) 12 for Utility Lines.

Both Notices allege speculative, unfounded, future violations of various laws and argue the project will cause harm to water quality and endangered species. In general, the Notices express concern about risk to federally listed endangered species, largely because of alleged risk to karst features and water quality. In particular, the Notices argue the project will not implement measures intended to avoid impacts to the Trinity and Edwards Aquifers and that the pipeline may carry liquids that pose a risk to ground water. As explained below, PHP has carefully planned the project to employ best management practices to avoid the possibility of the impacts of concern.

PHP Routing

The July Notice's assertion that PHP "wholly refused to consider alternative routes that avoid the Hill Country" is inaccurate. The pipeline is necessary to transport natural gas from producers in the Permian Basin to customers in Katy, Texas. Market factors dictated the originating and terminating points for the pipeline, and PHP selected the most appropriate route given those constraints. PHP initially considered and rejected three completely different routes. To aid in minimizing any potential impacts when making routing decisions, PHP retained SWCA Environmental Consultants and TRC Companies, Inc., a civil surveying company. First, the company considered routing the project along the existing Rancho Pipeline for its entire length. However, this route would have taken the project through densely populated areas in and around Austin and intersected more privately owned parcels. Second, the company considered a route south of San Antonio to avoid the Hill Country. This would have been a longer route intersecting more privately owned parcels and would have run directly over the middle of the Edwards Aquifer. Third, the company evaluated a route north of Austin to avoid the Hill Country. Again, this would have been a longer route affecting more privately owned parcels and would have transected areas of rocky terrain requiring extensive blasting and resulting in additional environmental impacts.

PHP selected the specific project route for the pipeline to minimize potential impacts, and various adjustments to the route were made during the planning process to further diminish potential impacts. The route takes into account population and structures, parcel boundaries to minimize the number of landowners impacted, the presence of other utilities, environmentally sensitive areas, cultural and archaeological resources, and engineering and construction needs. The project is co-located with several existing utilities, including Kinder Morgan's Gulf Coast Express Pipeline and the Rancho Pipeline, along 61% of its route. Between November of 2018 and March of 2019, PHP's contractors conducted environmental (natural and cultural resources) and civil surveys of the route. Aquatic resources surveys were completed by wetland scientists. Biologists performed threatened and endangered species surveys to provide information for the preparation of the consultation documents necessary for Section 7 consultation between the

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USACE and the U.S. Fish and Wildlife Service (USFWS).¹ PHP made 38 individual route adjustments based on the cultural and aquatic resources. PHP made another 196 route adjustments after the civil surveys based on landowners' requests, constructability issues, and other engineering considerations. Additionally, PHP retained Cambrian Environmental which conducted a geological assessment and karst survey from mid-February through early-July 2019. PHP completed more than 20 route adjustments in response to the assessment and survey. Karst geology is discussed in greater detail below.

State and Federal Requirements

The project is subject to an extensive framework of laws and regulations that address environmental, health, and safety aspects of natural gas pipeline projects and their operations. PHP used this framework to make informed routing decisions that accounted for environmental, health, and safety concerns. Setting aside the federal requirements relevant to USACE's permit review that influence pipeline routing, Texas law likewise influenced the route selected by PHP. State regulators are obligated to review pipeline routes that may affect certain archeological sites or historic structures.² Texas law also places protections on property that may be affected by pipeline routing decisions such as parks, recreation areas, wildlife refuges, and agricultural conservation easements.³ Further state approvals are required prior to routing a pipeline across certain state rights of way.⁴

Further still, federal and state laws and regulations govern the safety and environmental compliance of natural gas pipelines. The Texas Railroad Commission (the "Commission") exercises broad regulatory oversight when it comes to the safe operation of natural gas pipelines. Natural gas pipeline operators must obtain an operating permit from the Commission.⁵ States maintain jurisdiction over safety requirements for intrastate natural gas pipelines, as long as those requirements are at least as strict as those promulgated by the federal government. The Commission has incorporated by reference federal pipeline safety requirements, and in many

¹ In addition to the karst-related work discussed in detail below, PHP completed various activities related to the Section 7 consultation process including:

1. Evaluation of the entire alignment, including re-routes, 300-foot wide survey corridor,
2. Preparation of a Survey Plan with methods and standards for data collection,
3. Use of initial habitat assessment data (aerial imagery, vegetation communities, soils, geology, topography, publicly available species occurrence records) to plan surveys,
4. Use of helicopter fly-overs to visually assess areas and delineate suitable golden-cheeked warbler habitat, and ground surveys to delineate habitat of other listed species (e.g., the Houston toad and the Barton Springs salamander), and
5. Completion of presence/absence surveys for Tobusch fishhook cactus populations in potential habitat (roughly 30 miles). All identified cacti were mapped using GPS.

² TEX. NAT. RES. CODE ANN. § 191.0525(c).

³ See TEX. PARKS & WILD. CODE ANN. §§ 26.001, 84.007 (requiring a public hearing prior to taking such resources and, in the case of agricultural conservation easements, mitigation efforts and a determination that no feasible or prudent alternative exists).

⁴ 43 TEX. ADMIN. CODE § 21.37.

⁵ 16 TEX. ADMIN. CODE § 3.70.

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instances has supplemented those standards with additional requirements.⁶ For instance, Commission regulations address the structural integrity, design pressure, and yield-strength requirements for steel pipelines⁷ and they govern leak prevention and response.⁸

While the Commission provides primary oversight of natural gas pipeline safety, the Texas Commission on Environmental Quality (TCEQ) is also involved in regulating environmental compliance issues. TCEQ regulations require major stationary sources (such as compressor stations) associated with a pipeline to obtain a Clean Air Act Title V operating permit and to comply with state regulations governing air emissions from new construction or modifications.⁹ TCEQ also regulates activities that have the potential to pollute the Edwards Aquifer and hydrologically connected surface streams.¹⁰ Under this program, certain regulated activities over the Edwards Aquifer require TCEQ approval of a protection plan outlining the best management practices that will be implemented and maintained, both during and after construction activities, to prevent contaminants found in storm water from reaching the Edwards Aquifer. Although pipeline construction activities are not subject to these requirements, PHP has voluntarily created a Void Response and Mitigation Plan modeled after the Best Management Practices from TCEQ Edwards Aquifer Protection Plan.¹¹ Finally, additional state regulations govern the storage, transport, and disposal of waste from pipelines and TCEQ and the Commission share responsibility for regulating these activities.¹²

Karst Features and Water Quality

The October Notice relies on two reports to assert the project has been planned without taking into account the presence of karst features and that construction in the karst zone will lead to adverse impacts to water quality. These assertions are incorrect. In fact, as explained in the 22 November 2019 Letter Report of Dr. Kemble White, enclosed with this letter, the project will implement all of the applicable best management practices required by the TCEQ guidelines for construction in and around karst features. In other words, all the applicable techniques proposed in the reports attached to the October Notice will be implemented.

In summary, Dr. White's Letter Report explains that the project's karst management strategy began with a thorough characterization of the project area based on an understanding of the environmentally sensitive hydrological and ecological context. In particular, PHP conducted an

⁶ See 16 TEX. ADMIN. CODE § 8.1(b)(1). For example, whereas federal rules permit pipelines to avoid certain pipeline coating requirements in noncorrosive environments, *see* 49 C.F.R. § 192.455, Texas regulations require documented proof substantiating any such coating decision. 16 TEX. ADMIN. CODE § 8.203(1). In another section related to the monitoring control for external corrosion, Texas regulations make clear that certain testing sites shall be chosen to give "representative pipe-to-soil readings." *Id.* § 8.203(3)(A).

⁷ 16 TEX. ADMIN. CODE § 8.1(b)(1) (adopting 49 C.F.R. §§ 192.53, 192.105, 192.107). The Commission also requires a pipeline operator to file at least 30 days before the start of construction a construction report "stating the proposed originating and terminating points for the pipeline, counties to be traversed, size and type of pipe to be used, type of service, design pressure, and length of the proposed line." 16 TEX. ADMIN. CODE § 8.115.

⁸ 16 TEX. ADMIN. CODE § 8.201 *et seq.*

⁹ 30 TEX. ADMIN. CODE Chs. 122, 116.

¹⁰ 30 TEX. ADMIN. CODE Ch. 213.

¹¹ See 30 TEX. ADMIN. CODE §§ 213.3(28), 213.22(6).

¹² 16 TEX. ADMIN. CODE § 3.30(d)(6).

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extensive geological assessment and karst survey for the project.¹³ The survey is attached to Dr. White's 22 November 2019 Letter Report. The surveys employed the TCEQ best practices for geological assessments within the Edwards Aquifer Recharge and Transition Zone.¹⁴ PHP also conducted a geophysical investigation including electrical resistivity imaging surveys to characterize subsurface conditions. Karst scientists, karst geophysicists, and PHP engineers worked together, using all of this information, to adjust the project route to minimize potential impacts to karst features. As Dr. White explains, “[t]his karst feature avoidance measure emulates compliance with the TCEQ Edwards Aquifer rules and technical guidance (even though PHP is exempt from their requirements).”¹⁵

In addition to influencing project routing, the survey work will be used to inform the implementation of other karst-region best management practices during construction including work space modifications, delineation of karst protection zones, enhanced sediment control, and enhanced soil and vegetation rehabilitation.¹⁶ Many activities of concern noted in the October Notice will be prohibited within karst protection zones—by way of example, there will be no storage tanks, no refueling of vehicles, no routine maintenance, no parking overnight, no portable toilets and no storage of construction materials.¹⁷

Finally, as referenced in the Biological Assessment (BA) submitted to USACE, to further reduce the potential for impacts to karst resources and water quality, void mitigation and response protocols have been incorporated into the construction plan.¹⁸ As Dr. White explains, this plan is based in part on standards in the TCEQ Edwards Aquifer rules and the associated manual as well as on the City of Austin Specs for Void and Water Flow Feature Mitigation of the Environmental Criteria Manual.¹⁹ Dr. White notes that in his 20 years of experience, he has seen “karst due-diligence standards and practices increase considerably in their effectiveness at avoiding and minimizing impacts to karst resources.”²⁰ Based on his extensive experience with large infrastructure projects that traverse the Edwards Aquifer karst system, Dr. White concludes that PHP’s karst management approach is “state-of-the-art.”²¹

¹³ Throughout its route, the vast majority of which will be buried at a depth of approximately seven feet measured from the bottom of the line and well above the aquifers.

¹⁴ *Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones*, (Oct. 1, 2014), https://www.tceq.texas.gov/assets/public/compliance/field_ops/eapp/F-0585_geologic_assessment_instructions.pdf.

¹⁵ Letter from Dr. Kemble White, Ph.D, P.G., to Ms. Angela R. Williamson, P.E. at 7 (Nov. 22, 2019) [hereinafter Letter Report].

¹⁶ *Id.* at 7–8.

¹⁷ *Id.* at 8.

¹⁸ See *KM Responses to BSEACD Questions*, <https://phpproject.com/wp-content/uploads/2019/08/8.27.19-BSEACD-KM-Responses-Final.pdf>.

¹⁹ Letter Report at 8. See also 30 TEX. ADMIN. CODE ch. 213 (TCEQ’s Edwards Aquifer Rules); *Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices* (July 2005) (TCEQ RG-348), <https://www.tceq.texas.gov/publications/rg/rg-348>.

²⁰ Letter Report at 10.

²¹ *Id.*

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All of this information formed the basis for PHP's assessment of potential impacts to water quality and to the endangered species that inhabit the karst region. This assessment is set forth in the BA submitted to USACE.

The Pipeline Will Not Transport Liquids

The Notices also assert PHP could switch the pipeline from natural gas service to transport crude or other liquids, or the pipeline may accumulate large quantities of condensate that could leak into groundwater. These assertions are misleading. Theoretically, the service could be changed. However, from a practical, legal, and engineering standpoint, such a change is nonsensical. A change in service would be expensive, time consuming, and very difficult. The right-of-way agreements and certain of the road crossing agreements expressly limit the pipeline to transportation of natural gas. Further, the statutory scheme by which the right-of-ways were condemned is expressly limited to natural gas service. It is undeniable any attempt to alter the service would trigger costly legal challenges. In addition, the PHP pipeline is engineered and will be constructed to transport natural gas. Major reconfiguration would be necessary to convert the pipeline to transport liquids. Finally, because of constraints in moving natural gas from the Permian basin, the pipeline is fully subscribed for the next 10 years. These subscriptions are binding contracts.

With respect to the potential for accumulation of liquids that could leak, the company has extensive experience with gas pipelines and this potential and has taken steps to avoid such accumulation. First of all, the gas that will be transported will be dry based on the established gas quality specification for all customers on the PHP. The gas quality specification is measured and enforced at every receipt point on the pipeline and restricts heavier hydrocarbons. The restriction is designed to assure that all gas stays in gaseous form and is a requirement for delivery of the gas. Each of the receipt measurement stations will be equipped with gas chromatographs and analyzers that ensure the gas quality specification is met. If the specifications are not met, PHP has remote capabilities to interrupt service. In fact, the majority of the gas that will be transported on the PHP will have already passed through a Cryogenic Gas Plant which will strip out all available higher revenue streams in the gas, including any liquids which will drop out due to the extreme temperature drop in the Plant.

Second, the gas composition will mirror the composition of gas being delivered via the company's GCX line. The GCX gas dewpoint has been determined to be approximately negative 90 degrees Fahrenheit. While the temperature of the gas in the PHP will vary, it will be as warm as 120 degrees Fahrenheit and get no colder than the ground temperature. Ground temperatures along the project route range from 60-70 degrees Fahrenheit – as much as 160 degrees higher than the pipeline gas dewpoint.

Third, the company operates another similar line in this area of Texas, the Hill Country Lateral, which contains multiple compressor stations with filter separators designed to protect the compressor units from any liquids or solids that may be in the line. The operators of these

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stations have historically pulled almost no liquids out of the line at these stations. Similarly, at every metered inlet point, PHP will have a filter separator designed to filter and catch any possible liquids in the gas stream.

In summary, the assertion that “liquid does occur in gas transmission pipelines, and could occur in thousands of gallons where there are long segments between valves and or drain,” is simply not accurate for the project. In the unlikely event of a leak from the pipeline, natural gas, which rises, cannot remain in the ground or impact groundwater. This operation of this pipeline will not pose risk to groundwater quality, contrary to the assertions set out in the Notices.

Potential Impacts To Species Are Being Addressed Through Consultation

With respect to endangered species, PHP is working with USACE to consult with USFWS under Section 7 of the Endangered Species Act to ensure appropriate measures are put in place to protect the Golden-cheeked Warbler, the Barton Springs Salamander, the Houston Toad, and the Tobusch Fishhook Cactus, and their respective habitats. Further, as explained in the BA, the project will have no effect on the other species mentioned in the Notices—the Austin Blind Salamander, the San Marcos Salamander, the Texas Blind Salamander, the Fountain Darter, and the Comal Springs Beetle.

The Section 7 consultation effort will fully address the concerns expressed in the Notices about the protection of endangered species—concerns which PHP has already addressed in the BA prepared for USACE. Before providing the pre-construction notification and associated documents to USACE and the USFWS, PHP engaged both agencies to discuss the best way forward to ensure compliance with the ESA. In accordance with the typical arrangement between USFWS and USACE for linear projects of this type, the BA addresses both potential effects within the USACE’s jurisdiction as well as potential effects of the project as a whole.²² PHP is confident that USFWS will produce a Biological Opinion that appropriately considers both elements, in compliance with the applicable consultation regulations.

NWP 12 Was Designed To Permit Projects Like PHP

Both Notices mistakenly assert that USACE must evaluate the project pursuant to an Individual Permit application rather than under NWP 12. USACE, specifically the Chief of Engineers, issues NWPs designed to regulate certain activities with no more than minimal individual or cumulative adverse effects. Section 404(e)²³ of the Clean Water Act (CWA) provides authority for general permits, including NWPs, in order to regulate “with little, if any, delay or paperwork certain activities in jurisdictional waters and wetlands that have no more than minimal adverse

²² This general approach is reflected in exchange of letters, referred to in the October Notice, between Gary Frazer, Assistant Director for Ecological Services, U.S. Fish and Wildlife Service (May 22, 2017), and James Dalton, Director of Civil Works, U.S. Army Corps of Engineers (October 2, 2017). *See also* 84 Fed. Reg. 44,977.

²³ 33 U.S.C. § 1344(e).

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environmental impacts”²⁴ The Chief of Engineers also issues NWPs pursuant to Section 10 of the Rivers and Harbors Act of 1899.²⁵

Soon after the 2017 issuance of the current set of NWPs, Executive Order 13783 (the “E.O.”) was issued. The E.O., entitled *Promoting Energy Independence and Economic Growth*, encourages agencies to facilitate the development of energy infrastructure with as little regulatory burden as possible. The E.O. states as federal policy that “[i]t is in the national interest to promote clean and safe development of our Nation’s vast energy resources, while at the same time avoiding regulatory burdens that unnecessarily encumber energy production, constrain economic growth, and prevent job creation.”²⁶

The E.O. also directed agencies to review existing regulations that potentially burden domestic energy production for possible revision. In the course of its review, USACE explained that the acreage limit in NWP 12 “has allowed thousands of activities to be authorized by NWP” and has had the salutary effect of encouraging project proponents to “avoid and minimize losses of jurisdictional waters and wetlands on the project site to comply with the ½ acre limit and qualify for NWP authorization.”²⁷ USACE specifically addressed the contention that an individual permit should be required for natural gas pipelines, explaining that it does not have the authority to regulate pipelines or address spills or leaks or upland construction or operation.²⁸ In addition, USACE explains that “[a]ctivities authorized by NWP 12 are currently playing, and will continue to play, an important role in helping the nation achieve goals regarding the increased reliance on clean energy projects to meet the energy needs of its populace, and to help reduce emissions of greenhouse gases that contribute to climate change.”²⁹ In fact, USACE has proposed modifying NWP 12 to remove all but two of the conditions that require pre-construction notification to the agency, making NWP 12 even simpler to use where it applies.³⁰

The Permian Highway Pipeline is precisely the type of project for which NWP 12 is designed. Notably, there will be no permanent impacts to waters regulated under the CWA or Rivers and Harbors Act. The pipeline stretches for 428.5 miles and requires NWP 12 authorization for 443 crossings of waters subject to CWA jurisdiction and one crossing underneath a waterway subject to Rivers and Harbors Act Section 10 jurisdiction. As discussed above the use of NWP 12 is limited to a *permanent* loss of CWA jurisdictional waters no greater than ½ acre for each single and complete project. For PHP, no crossing even approaches the limit. The smallest jurisdictional crossing is 0.0001 acres and the largest is 3.594, but these losses are temporal—there will be no permanent loss to jurisdictional waters as all portions of the right-of-way

²⁴ 82 Fed. Reg. 1,860 (January 6, 2017).

²⁵ 33 C.F.R. § 322.2(f).

²⁶ 82 Fed. Reg. 16,093 (March 28, 2017).

²⁷ *Review of 12 Nationwide Permits Pursuant to Executive Order 13783* at 2 (September 25, 2017), <https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll7/id/6902>.

²⁸ *Id.* at 32.

²⁹ *Id.* at 34.

³⁰ *Id.* at 2.

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impacted, including wetlands and other waterbodies, will be restored to pre-construction elevations and contours.³¹

In total and among the three USACE Districts, 4.138 acres of jurisdictional wetlands, 49,226 feet of jurisdictional streams, and 16.024 acres of ponds will be temporarily impacted by the project.³² Temporary impacts to waters within the area of USACE jurisdiction total a mere 0.65% of the overall project. Contrary to the Notice assertions, the project is well within the parameters of the types of projects considered in the USACE Environmental Assessment (EA), prepared in the course of deciding whether to issue NWP 12 and on what terms.³³ That EA provides an example of a typical project—a project where 2.3% of the total length was within USACE jurisdiction and involved permanent impacts.³⁴

PHP Has Engaged The Public

Finally, while not independently required by the CWA, NEPA, or ESA, PHP has done significant outreach to the public to explain the project and the extensive safeguards being implemented to protect the environment.³⁵ PHP conducted five open houses between February and April of 2019; one each in Hays County, Kyle County, Blanco County, Gillespie County, and Caldwell County. The purpose of these meetings was to meet with the public to explain the project, and to understand and respond to local concerns. PHP also met with various local officials and other stakeholders between November 2018 and March 2019, including the Blanco County Commissioners Court, the Edwards Aquifer Authority, the Barton Springs Edwards Aquifer Conservation District, the Hays Trinity Groundwater Conservation District, the Blanco Pedernales Conservation District, the Hill Country Underground Water Conservation District, the Caldwell County Commissioners Court, and the Lockhart Chamber of Commerce.

In conclusion, while PHP acknowledges the concerns expressed to USACE and USFWS as explained above, PHP posits the concerns have been considered and more than adequately addressed by PHP as part of its considerable design efforts. Further, PHP is confident the concerns raised in the Notices have been and are being addressed appropriately in the course of the regulatory process. Please do not hesitate to contact us with any questions.

³¹ Please note the scope of the project does include plans to permanently convert less than 1/10 of an acre of forested wetland to emergent herbaceous wetland in the Fort Worth Division. Initially, in the Galveston District, there were plans to permanently convert portions of five forested wetlands. However, PHP redesigned the project (portions of Spread 5) to avoid the permanent conversion impacts.

³² Due to the temporary nature of the proposed impacts, the USACE typically moves forward with a Preliminary Jurisdictional Determination which presumes that all delineated waters are WOTUS. The USACE has not conducted an Approved Jurisdictional Determination for this project.

³³ The use of NWP 12 for regulated activity associated with linear pipelines has been repeatedly upheld by the courts. *See, e.g.*, Sierra Club v. U.S. Army Corps of Engineers, 803 F.3d 31 (D.C. Cir. 2015); Sierra Club v. Bostick, 787 F.3d 1043 (10th Cir. 2015).

³⁴ *Decision Document, Nationwide Permit 12*, at 7, <https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll7/id/6725>.

³⁵ USACE complies with NEPA's requirements, including public outreach and comment, when it issues and reviews its Nationwide Permits every five years.

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Sincerely,



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Enclosures

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